

# Receiving Report

Date: 15-01-14

Batch No: 131277

Supplier: Tempo Aerospace

Part P/O: 27844

Packing Slip: Yes ☒ No ☐  
 Invoice: Yes ☒ No ☐  
 Receipt: Cash ☐ Cr ☒  
 New Supplier Yes ☐ No ☒

Release Note Attached: Yes ☒ No ☐ N/A ☐  
 Waybill Attached: Yes ☒ No ☐  
 Shipment Complete: Yes ☒ No ☐ N/A ☐  
 QC18 Inspection ☐ N/A ☒  
 Work Order ☐ N/A ☒

## Discrepancies

Part Number	Description	Quantity Ordered	Quantity Rec'd	Quantity Short	Quantity Inspected	Quantity Rejected	Comment / NCR Number

Initials of Receiver

QC12

*[Signature]*

Production/Admin:

Date \_\_\_\_\_

Received/Costing \_\_\_\_\_

Initial \_\_\_\_\_

Location \_\_\_\_\_



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO25903

Purchase Order Date 9/24/2014

PO Print Date 9/24/2014

Page Number 1 of 1

Order From :

VC-TEM001

Ship To : DART AEROSPACE LTD

TEMPO AEROSPACE INC.  
205 FENMAR DR.  
TORONTO, ON M9L 2X4  
CA

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

Contact Name  
Vendor Phone 416 746 2233  
  
Ship To Contact  
Ship To Phone  
Ship Via: Purolator ground collect  
Ship Acct:

Buyer  
Customer POID  
Customer Tax # 10127-2607  
Terms Net 30  
Currency CAD  
FOB Destination-Collect

**FAXED**

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable CD Req Date/ Taxable CD Req Date/ Taxable CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	71400-11	DEF-23377-1-N-1GKT AQUA GREEN PRIMER	<del>9/2014</del> 11/2015 Yes 014	4.00 Each	\$289.15	\$1,156.60
Procurement Quality Clauses A005 RIGHT OF ENTRY A013 SHELF LIFE CONTROLLED MATERIAL; 80% SHELF LIFE REQUIRED AT RECEIPT A026 CERTIFICATION OF MATERIAL CONFORMANCE A040 NOTIFICATION OF QUALITY ESCAPE A041 QUALITY MANAGEMENT SYSTEM A042 DART NOTIFICATION BY SUPPLIER A043 RETENTION OF QUALITY DOCUMENTS						

SP/15-01-14

Deliver To: ANDY

Line Total: \$1,156.60

PO Total: \$1,156.60

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

Change Nbr: 1

Change Date: 9/24/2014



# Tempo Aerospace Inc.

205 Fenmar Drive  
Toronto ON M9L 2X4 Canada  
Phone: 416.746.2233 Fax: 416.746.2235  
orderdesk@tempo-aerospace.com

# Packing Slip

**No. 27844**

Pg:1/2



**Ship To : [1]**

Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Canada

**For : Account No. [DARTAS]**

Dart Aerospace Ltd.  
Attn: Chantal Lovoie, Buyer  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Canada  
Tel. : (613) 632-9577  
Fax : (613) 632-1053

S.O. No. : 7601	Our Ref :	Domestic AWB :
Cust P.O. : PO25903	Your Ref :	Int'l AWB :
Picked On : Jan-13-2015	Trans Mode : GROUND	Origin :
Shipped On : Jan-13-2015	Req. Docs : CC, TR	Transport :
Ship Via : PUROLATOR GROUND	Lic No. :	Nationality:
Incoterms : FREE CARRIER	Expires :	Trip/Flight :
Terms : NET 30		
Ship Via Acct. : PUROLATOR GROUND Account No. 7684382		
Our Contact : House Account		

Line	P/N & Description	Ordered	Qty Shipped	Back Order	Packaging
1	DEF-23377-1-N-1GKT Aqua Green, Chrome Free Epoxy Primer Spec1:MIL-PRF-23377K Ty.I CL.N	/4	4 KT	0	(In Box:b) (Qty 2 in Pkg:a) (In Box:b) (Qty 2 in Pkg:b)
2	DEF-02GN084 BASE: Aqua Green Chromate Free Epoxy Primer UID: 15371  Spec1:MIL-PRF-23377K TY I CL.N Batch # :101682 LINE VOLUME: [ML] 11,360.000	/4	4 GC	0	
3	DEF-02GN084CAT CURE: Aqua Green Epoxy Primer UID: 15372  Spec1:MIL-PRF-23377K TY I CL.N Batch # :101683 LINE VOLUME: [ML] 3,788.000  For a DANGEROUS GOODS EMERGENCY, call Canutec at the 24 hours number (613) 996-6666 / Pour une MARCHANDISES DANGEREUSES URGENCE, appeler Canutec au nombre de 24 heures (613) 996-6666	4 /	4 QC	0	
Box No.	Box(es) Type / Description Dimension Type [CM]	Gross Weight [KG]	Net Weight [KG]		Box(es) ID

8015-014



## Tempo Aerospace Inc.

205 Fenmar Drive  
Toronto ON M9L 2X4 Canada  
Phone: 416.746.2233 Fax: 416.746.2235  
orderdesk@tempo-aerospace.com

# Packing Slip

Trans Mode : GROUND  
Req. Docs : CC, TR

Pick Ticket No. 27844 / Page : 2/2

Line	P/N & Description	Ordered	Qty Shipped	Back Order	Packaging
1	4X1 Double Walled Brown Box L 14.750 x W 14.500 x H 8.250	0.000	0.000		a
2	4X1 Double Walled Brown Box L 14.750 x W 14.500 x H 8.250	0.000	0.000		b

Picked By :

Natasha Pisegna, INSIDE SALES/CUSTOMER


# Certificate of Conformance/ Certificat de conformité

Packing Slip/Bon de ramassage 58023847 Page: 1 of 1

PPG Aerospace  
A Division of PPG Canada Inc  
5676 Timberlea Blvd.  
Mississauga, ON L4W 4M6  
Phone: 905-629-7999

Fax: 905-629-7009

Order Date/ 01/06/15  
Date de la Commande:  
Cust. No./ TC009536  
No. de réf du client:  
Terms/ NET30  
Termes:  
Cust. P.O./ 305491  
No. de bon de Commande:  
Site: 3738CN

Order No/ S127007 01/06/15  
No. de Commande: 11:14:29  
  
CSR:

Remarks/ **BUYER: LORNA BUFFETT/GS**  
Remarques:

Ship via/ **SEE BELOW**  
Expédié par:

Sold To/ TC009536  
Vendu à: TEMPO AEROSPACE INC.  
205 FENMAR DRIVE  
NORTH YORK, ON M9L 2X4  
CANADA

Ship To 00002678  
Expédié à TEMPO AEROSPACE INC.  
205 FENMAR DRIVE  
TORONTO, ON M9L 2X4  
CANADA

Line/ Ligne	Qty Ordered/ Qté. commandée. UM	Description	Req Date/ Date Requête	Due Date/ Date Due	Promise Date/ Date Promise	Qty to Ship/ Qté. Disponible	Qty Picked/ Qté. Livrée
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Quality Requirements:  
CERTIFICATE OF CONFORMANCE  
TEST REPORT  
CUSTOMER PO# REQUIRED ON CERT

Shipping Info:  
CUSTOMER PO# REQUIRED ON ALL SHIPPING DOCUMENTS  
SHIP VIA MANITOULIN TRANSPORT COLLECT ACCT# 0064671

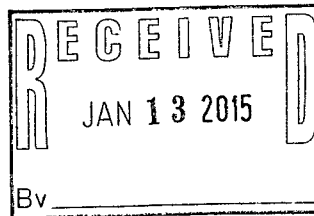
1	5 EA	DE02GN084XMPY22K MIL-PRF23377 TI,CLN GRN 02GN084 GK 3:1 GL SPEC: MIL-PRF-23377K TY I CL N	12/17/14	01/08/15	01/08/15		
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Lot No: 101682/101683

\*Location: FRA-2  
\*Location: FRA-3

4 4  
1 1  
000987

905-670-8990



0108 S127007  
Date Shipped/ 1/8/15  
Date D'expédition

We certify that this material has been manufactured and tested in accordance with applicable specification(s). Test data pertaining to this material is on file and available for inspection upon request.

N Maharaj  
Niri Maharaj



Quality Control

3 boxes 29kg

Test Report for MIL-PRF-23377K, Type I, Class N  
Formerly MIL-PRF-23377J, Type I, Class N Amendment 2  
including Sikorsky Specification SS8555



FED STD 595 Color: green Date: 4/22/2014  
Deflt Code, Base: 02GN084 Deflt Code, Catalyst: 02GN084CAT  
Batch No., Base: 101682 Batch No., Catalyst: 101683  
Customer:  
Contract/PO Number:

TEST REQUIREMENTS

TEST RESULTS

Composition (3.4)

Lead metal or compounds  
Incidental Cadmium and compounds  
Chromium Content (3.4.1.3) [class N only]  $\leq$  5 ppm  
Volatile Content (3.4.2) - 340 G/L maximum

$\leq$  0.05% by weight  
 $\leq$  1 ppm  
 $\leq$  5 ppm  
246 g/L

Physical Component Properties (3.5)

Fineness of Grind (3.5.1) - 5 min  
Condition in Container (3.5.2)

5  
Conforms

Physical Admixed Properties (3.6)

Color (3.6.1)  
Odor (3.6.2)  
Viscosity (3.6.3), Admixed - 40" max in #4 Ford Cup  
Pot Life (3.6.4), After 4 hrs. 70" max in #4 Ford Cup

Conforms for Type  
Characteristic  
19.97  
27.22

Physical Film Properties (3.7)

Surface Appearance (3.7.1)  
Drying Time (3.7.2)  
1. Tack Free, 5 hours maximum  
2. Dry-Hard, 8 hours maximum  
Lifting (3.7.3)  
Adhesion (3.7.4), in water 24 hrs @ room temp  
Flexibility (3.7.5) 10% minimum, GE Impactor

No Abnormalities  
5 Hours  
8 Hours  
No Lifting  
No Peeling  
10%

Resistance Properties (3.8)

Water Resistance (3.8.1) 4 days @ 120 deg F  
Solvent Resistance (3.8.3) min 25 double MEK rubs  
Fluid Resistance (3.8.4)  
1. MIL-PRF-23699, 24 hours @ 250 deg F.  
2. MIL-PRF-83282, 24 hours @ 150 deg F.

No Deficiency  
 $\geq$  25 MEK rubs  
No Deficiency  
No Deficiency

Working Properties (3.9)

Mixing and Dilution (3.9.1)  
Application (3.9.2)

No Separation  
No Sags or Runs

I certify that these test were performed in accordance with the specification test procedure and that the test results in this report as submitted are true, valid and represent required for the above mentioned batch numbers.

SIGNED: *Andy Ley*

TITLE: Q.C. Technician

PRC-DeSoto International, Inc., 17451 Von Karman Ave., Irvine, CA 92614

# Material Safety Data Sheet

## For Coatings, Resins and Related Materials

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals

24 Hour Emergency: 1-800-123-4567 CHEMTREC: 1-800-424-9300

National Response in Canada CANUTEC: 613-996-6666

Outside U.S. and Canada Chemtrec: 202-483-7616

### Section 1 - Chemical Product / Company Information

Product Name:	MIL-PRF-23377J, TYPE I, CLASS N BASE	Revision Date:	05/08/2012
Identification Number:	02GN084	Print Date:	
Product Use/Class:	NON-CHROMATE EPOXY PRIMER BASE/MIL-PRF-23377J, TYPE I, CLASS N	NSN:	
Manufacturer:	Deft, Inc. (CAGE CODE 33461) 17451 Von Karman Ave Irvine, Ca. 92614	Information Phone:	(949) 474-0400
		Emergency Phone:	(800) 424-9300

### Section 2 - Hazards Identification

\*\*\* Emergency Overview \*\*\*: Flammable liquid and vapors. Harmful by inhalation, in contact with skin, and if swallowed. May cause burns to the skin. Eye irritant. Contact with eyes or skin causes irritation.

**Effects Of Overexposure - Eye Contact:** Exposure to liquid, aerosol, or vapors may cause irritation, tearing, redness, and swelling accompanied by a stinging sensation. Contact with eyes may cause irritation. Benzyl alcohol, a component of this formulation, can cause severe eye irritation and eye tissue injury as a result of direct eye contact.

**Effects Of Overexposure - Skin Contact:** Direct skin contact may cause irritation. Symptoms may include drying and cracking of skin, swelling, redness, pain, numbness, rash, burning, blistering, and skin burns. Material may pass through the skin and cause effects similar to breathing or ingestion. Prolonged or repeated skin contact may cause dermatitis, drying, and defatting due to the solvent properties. May cause allergic skin reaction. May cause severe skin irritation.

**Effects Of Overexposure - Inhalation:** Inhalation may cause irritation to the respiratory tract (nose, mouth, mucous membranes) & acute nervous system depression characterized by the following progressive steps: headache, nausea, weakness, dizziness, staggering gait, confusion, fatigue, drowsiness, unconsciousness, or coma. Exposure may cause difficult breathing, shortness of breath, or coughing. Inhalation may cause headaches and loss of consciousness. Harmful by inhalation. Lung inflammation or other lung injury may occur if secondary butyl alcohol enters the lungs through vomiting or swallowing. Overexposure to METHYL NORMAL PROPYL KETONE, a component of this formulation, has been suggested as a cause of mild, reversible effects on the livers and kidneys of laboratory animals. Exposure to benzyl alcohol, a component of this formulation, may aggravate preexisting medical conditions of the respiratory tract, lungs, and skin.

**Effects Of Overexposure - Ingestion:** Ingestion may cause gastrointestinal irritation, abdominal pain, nausea, vomiting, and diarrhea. May result in possible corrosive action in the mouth, stomach tissue, and digestive tract. Vomiting may cause aspiration of the solvent, resulting in chemical pneumonitis. Lung inflammation or other lung injury may occur if methyl n-propyl ketone enters the lungs through vomiting or swallowing. The gastrointestinal tract lining may be damaged through the ingestion of a component.

**Effects Of Overexposure - Chronic Hazards:** Prolonged contact will cause drying and cracking of the skin, due to defatting action. Repeated or prolonged contact causes sensitization, asthma, and eczemas. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. Exposure may cause mild, temporary changes in the liver, and low blood pressure. In animal studies, exposure to a component(s) has been shown to cause damage to the fetus, only at a level of exposure that would also harm the pregnant animal. The relevance of these findings to humans is unknown. Exposure to METHYL NORMAL PROPYL KETONE, a component of this formulation, has been found to cause kidney damage in male rats. The mechanism by which this toxicity occurs is specific to the male rat and the kidney effects are not expected to occur in humans. Methyl n-propyl ketone, a component of this formulation, has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain. PRODUCT CONTAINS TITANIUM DIOXIDE PIGMENT, WHICH HAS AN IARC CLASSIFICATION OF 2B POSSIBLY CARCINOGENIC TO HUMANS.

**Primary Route(s) Of Entry:** Skin Contact, Inhalation, Eye Contact

### Section 3 - Composition / Information On Ingredients

Component	CAS Number	Weight % Reporting Ranges
BENZENE, 1-CHLORO-4 TRIFLUOROMETHYL	98-56-6	15-40
TITANIUM DIOXIDE	13463-67-7	5-10
sec-BUTYL ALCOHOL	78-92-2	5-10
CYCLOHEXANONE	108-94-1	5-10
PRASEODYMIUM OXIDE	12036-32-7	1-5
METHYL n-PROPYL KETONE	107-87-9	1-5
BENZYL ALCOHOL	100-51-6	1-5
BISPHENOL A EPOXY RESIN, AVG. MOL. WT. < 700	25085-99-8	1-5
ALIPHATIC AMINE	140-31-8	0.5-1.5

ALL INGREDIENTS ARE ON THE TSCA INVENTORY LIST, UNLESS OTHERWISE NOTED IN SECTION 8.

#### Section 4 - First Aid Measures

**First Aid - Eye Contact:** If material gets into eyes, flush with water immediately for 15 minutes. Hold eyelids open to rinse out the entire eye. Consult a physician. If symptoms develop (irritation) from airborne exposure, move to fresh air.

**First Aid - Skin Contact:** Remove contaminated clothing and shoes. In case of contact, immediately flush skin with plenty of water and wash affected areas thoroughly with soap and water. Wash contaminated clothing thoroughly before reuse or discard. If symptoms develop, consult a physician.

**First Aid - Inhalation:** Move to fresh air in case of accidental inhalation of vapors. Give oxygen or artificial respiration if needed. Asthmatic type symptoms may develop and maybe immediate or delayed by several hours. In the case of inhalation of aerosol/mist, consult a physician, if necessary.

**First Aid - Ingestion:** Do not induce vomiting. Do not give anything to an unconscious person. Obtain medical help.

#### Section 5 - Fire Fighting Measures

Flash Point (°F): 46 TCC      LOWER EXPLOSIVE LIMIT (%): 0.9      UPPER EXPLOSIVE LIMIT (%): 10.

Extinguishing Media: Carbon Dioxide, Dry Chemical, Foam, Water Spray, Dry Sand, Dry Powder

Unusual Fire And Explosion Hazards: Keep containers tightly closed. Isolate from heat, sparks, electrical equipment and open flame. Fire or intense heat may cause violent rupture of packages. Application to hot surfaces requires special precautions. Toxic gases may form when product burns. Remove all sources of ignition. Do not use a cutting or welding torch near or on a drum of product, because vapors may ignite explosively, even if the drum is empty and contains only product residue. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.

Special Firefighting Procedures: In the event of fire, wear self-contained breathing apparatus. Firefighters should wear full protective clothing. Flammable. Cool fire-exposed containers using water spray.

#### Section 6 - Accidental Release Measures

Steps To Be Taken If Material Is Released Or Spilled: Evacuate all non-essential personnel. Remove all sources of ignition. Ventilate area. Contain and remove spilled material with inert absorbent and non-sparking tools. Use personal protective equipment as necessary. Dike to prevent entering any sewer or waterway. Soak up with vermiculite or inert absorbent material.

#### Section 7 - Handling and Storage

Handling: Prevent prolonged breathing of vapors or spray mist. Avoid contact with eyes and skin. Do not take internally. Do not handle until the manufacturers safety precautions have been read and understood. Handle in accordance with good industrial hygiene and safety practice. Keep away from heat and sources of ignition. Use safety precautions with empty containers. Empty containers may contain hazardous materials (product residues) in the form of solids, liquids, or vapors. Always use grounding leads when transferring from one container to another. Protect container against physical damage.

Storage: Store in buildings designed to comply with OSHA 1910.106. Avoid storing near high temperatures, fire, open flames, and spark sources. Keep containers upright to prevent leakage and tightly closed in a dry, cool, and well-ventilated place.

#### Section 8 - Exposure Controls / Personal Protection

Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
BENZENE, 1-CHLORO-4 TRIFLUOROMETHYL	2.5 mg/m3	N.E.	2.5 mg/m3	N.E.
TITANIUM DIOXIDE	10 mg/m3	N.E.	15 mg/m3	N.E.
sec-BUTYL ALCOHOL	100 ppm	N.E.	100 ppm	N.E.
CYCLOHEXANONE	25 ppm	N.E.	25 ppm	N.E.
PRASEODYMIUM OXIDE	10 mg/m3 total dust	NE	15 mg/m3 total dust	
METHYL n-PROPYL KETONE	200 ppm	250 ppm	200 ppm	250 ppm
BENZYL ALCOHOL	N.E.	N.E.	N.E.	N.E.
BISPHENOL A EPOXY RESIN, AVG. MOL. WT. < 700				
ALIPHATIC AMINE	N.E.	N.E.	N.E.	N.E.

#### Notes

BENZENE, 1-CHLORO-4 TRIFLUOROMETHYL CAS# 98-58-6 prolonged or repeated exposure to large amount through breathing or swallowing has been shown cause damage to the liver and kidneys in animal studies.

TITANIUM DIOXIDE CAS# 13463-67-7 - ACGIH/TLV & OSHA/PEL exposure limits are for the total dust. IARC Group 2B possibly carcinogenic to humans. Titanium Dioxide is considered by NIOSH to be a potential occupational carcinogen under Hazard Communication Standard, 29 CFR 1910.1200. This was based on NIOSH's interpretation of the study by Lee, Trochimowicz, and Reinhardt [1985], "Pulmonary Response of Rats Exposed to Titanium Dioxide (TiO2) by Inhalation for Two Years." "The authors of this study concluded that based on the excessive dust loading and overwhelmed clearance mechanism in the lungs of rats exposed chronically at 250 mg/m3 (6 hrs/day, 5 days/week for 2 years), the biological relevance of lung tumors to man appears to be negligible." As of September 2, 2011 As Known To The State Of California To Cause Cancer: titanium dioxide (airborne, unbound particles of respirable size) IRRITATION OF EYES, SKIN, AND RESPIRATORY TRACT ARE SYMPTOMS OF EXPOSURE. NO LISTING IN 2009 ACGIH GUIDE TO OCCUPATIONAL EXPOSURE.

METHYL n-PROPYL KETONE CAS# 107-87-9 has been shown to cause harm to the fetus in laboratory animals. It only caused harm at levels of overexposure that would also harm the pregnant animal. The relevance to humans is unknown. It also has been shown to cause mild, reversible kidney effects and mild, reversible liver effects in laboratory animals.

BENZYL ALCOHOL CAS# 100-51-6 - In laboratory studies, Benzyl alcohol has been shown to cause harm to the fetus of animals. Significance of these findings in humans is unknown.



ALIPHATIC AMINE CAS# 140-31-8 - Contains Bisphenol A (CAS# 80-05-7) less than 55%.

**Engineering Controls:** Local ventilation of emission sources may be necessary to maintain ambient concentrations below permissible OSHA exposure limits. Remove all ignition sources (heat, sparks, flame, and hot surfaces).

**Respiratory Protection:** A respirator that is recommended or approved for use in an organic vapor environment (air purifying or fresh air supplied) is necessary. Observe OSHA regulations for respirator use. Ventilation should be provided to keep exposure levels below the OSHA permissible limits.

**Skin Protection:** Solvent-resistant gloves.

**Eye Protection:** Wear safety eyewear (safety glasses, safety glasses with side-shields, chemical goggles, or face shields) to prevent eye contact.

**Other protective equipment:** Long sleeve and long leg clothing is recommended. Remove and wash contaminated clothing before reuse or discard. Safety shower and eyewash station should be located in immediate work area. Wear boots that are chemical-resistant.

**Hygienic Practices:** Wash hands before breaks, eating, smoking, using washroom, and at the end of the workday.

#### Section 9 - Physical and Chemical Properties

Boiling Range (°F):	211 - 282	Vapor Density:	HEAVIER THAN AIR
Odor:	PARACHLOROBENZOTRIFLUORIDE & Odor Threshold:		N.D.
	METHYL n-PROPYL KETONE		
	SOLVENTS		
Appearance:	Green liquid	Evaporation Rate:	N.D.
Solubility in H <sub>2</sub> O:	ND		
Freeze Point:	N.D.	Specific Gravity:	1.411
Vapor Pressure, mm Hg:	7.2	PH:	N.A.
Physical State:	Liquid	Viscosity:	> 18 #2 ZAHN CUP SECONDS (> 20 cps)

(See section 16 for abbreviation legend)

#### Section 10 - Stability and Reactivity

**Conditions To Avoid:** Avoid high temperatures, sparks, or open flames. Avoid uncontrolled reactions with amines. Do not breathe vapors or spray mist.

**Incompatibility:** Material is incompatible (reacts) with strong oxidizing agents, strong acids (Lewis and mineral), amines, and mercaptans. Material is incompatible with oxidizing agents. Material is incompatible with acids and bases. Reacts with amines and mercaptans.

**Hazardous Decomposition:** Thermal decomposition can lead to the generation and release of gases and vapors including carbon monoxide, carbon dioxide, aldehydes, and acids (organic). May produce gases containing fluorine or chlorine.

**Hazardous Polymerization:** Will not occur.

**Stability:** Stable under recommended storage conditions. Benzyl alcohol, a component of this formulation, is incompatible with aluminum, iron, strong mineral acids, and strong oxidizing agents.

#### Section 11 - Toxicological Information

Product LD50: N.E.

Product LC50: N.E.

#### Section 12 - Ecological Information

Ecological Information: No Information.

#### Section 13 - Disposal Information

**Disposal Information:** Dispose of waste in accordance with federal, state, and local environmental regulations. Empty containers will contain product residue and flammable vapors. Handle as hazardous material. Do not incinerate closed containers. EPA Hazardous Waste Number/Code: D001, F003, F005. Hazardous Waste Characteristics: Ignitability and Reactivity.

#### Section 14 - Transportation Information

DOT Proper Shipping Name:	Paint	Packing Group:	II
DOT Technical Name:	N.A.	Hazard Subclass:	N.A.
DOT Hazard Class:	FLAMMABLE LIQUID 3	Resp. Guide Page:	N.A.
DOT UN/NA Number:	UN-1263	IATA:	REGULATED

#### Section 15 - Regulatory Information

#### CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: IMMEDIATE HEALTH HAZARD, CHRONIC HEALTH HAZARD, FIRE HAZARD

#### SARA Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Component	CAS Number	Percent By Weight
sec-BUTYL ALCOHOL	78-92-2	8.4211

**Toxic Substances Control Act:**

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(B) if exported from the United States:  
None.

**U.S. State Regulations: As follows –**

**New Jersey Right-to-Know:**

The following materials are non-hazardous, but are among the top five components in this product.

**Component**

INORGANIC SULFATE

**CAS Number**

7778-18-9

**Pennsylvania Right-to-Know:**

The following non-hazardous ingredients are present in the product at greater than 3%.

**Component**

INORGANIC SULFATE

POLYAMIDE RESIN

**CAS Number**

7778-18-9

TRADE SECRET

**California Proposition 65:**

Warning: The following ingredients present in the product are known to the state of California to cause Cancer:

**Component**

TITANIUM DIOXIDE

METHYL ISOBUTYL KETONE

SILICA, CRYSTALLINE (QUARTZ)

**CAS Number**

13463-67-7

108-10-1

14808-60-7

**Percent By Weight**

8.4211

0.1684

0.0283

Warning: The following ingredients present in the product are known to the state of California to cause birth defects, or other reproductive hazards.

None

**International Regulations: As follows –**

**CANADIAN WHMIS:** This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

**CANADIAN WHMIS CLASS:** B2, D2B

**Section 16 - Other Information**

**HMIS Ratings:**

Health: 1

Flammability: 3

Reactivity: 0

Personal Protection: G

**NFPA Fire Rating:** 3

**NFPA Health Rating:** 2

**NFPA Specific Hazard Rating:** NA

**NFPA Stability Rating:** 1

**VOLATILE ORGANIC COMPOUNDS, GR/LTR:** 405

**VOLATILE ORGANIC COMPOUNDS, LB/GAL:** 3.38

**VOLATILE ORGANIC COMPOUNDS MIXED, GR/LTR:** <= 340

**VOLATILE ORGANIC COMPOUNDS MIXED, LB/GAL:** <= 2.8

**VOLATILE ORGANIC COMPOUNDS, LB/LB-SOLID:** <= 0.41

**VOLATILE ORGANIC COMPOUNDS OF MATERIAL (SCAQMD RULE 443.1), GR/LTR:** 297

**VOLATILE ORGANIC COMPOUNDS OF MATERIAL (SCAQMD RULE 443.1), LB/GAL:** 2.48

**VOLATILE HAPs PER WEIGHT SOLIDS, LB./LB.** 0.00330

**REASON FOR REVISION:** RESTORE MSDS PRIOR TO REVISION DATE 05-08-2012

**REGULATORY CODE:** 02GN084

**LAYOUT CODE:** A2004R

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

The information contained on this MSDS has been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.

# Material Safety Data Sheet

## For Coatings, Resins and Related Materials

NOTE: CHEMTREC, CANUTEC and National Response Center emergency numbers to be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals

24 Hour Emergency: 1-800-123-4567 CHEMTREC: 1-800-424-9300

National Response in Canada CANUTEC: 613-996-6666

Outside U.S. and Canada Chemtrec: 202-483-7616

### Section 1 - Chemical Product / Company Information

Product Name:	MIL-PRF-23377J-TYPE I-CLASS N CURATIVE	Revision Date:	01/31/2012
Identification Number:	02GN084CAT	Print Date:	
Product Use/Class:	EPOXY PRIMER CURING AGENT/MIL- PRF-23377J, TYPE I, CLASS N (NON- CHROMATE)	NSN:	
Manufacturer:	Deft, Inc. (CAGE CODE 33461) 17451 Von Karman Ave Irvine, Ca. 92614	Information Phone:	(949) 474-0400
		Emergency Phone:	(800) 424-9300

### Section 2 - Hazards Identification

**\*\*\* Emergency Overview \*\*\*:** Flammable liquid and vapors. Harmful by inhalation, in contact with skin, and if swallowed. Contact with eyes or skin causes irritation.

**Effects Of Overexposure - Eye Contact:** Exposure to liquid, aerosol, or vapors may cause irritation, tearing, redness, and swelling accompanied by a stinging sensation. Contact with eyes may cause irritation. Contact may cause excessive blinking and tear production, burns to the cornea, or excessive redness and swelling to the conjunctiva. Also, eye contact may cause the eye to have pain and discomfort.

**Effects Of Overexposure - Skin Contact:** Direct skin contact may cause irritation. Symptoms may include swelling, redness, and rash. Prolonged or repeated skin contact may cause dermatitis, drying, and defatting due to the solvent properties. May cause allergic skin reaction. Contact may cause redness, increased pigmentation of the skin, or discomfort. May cause severe skin irritation.

**Effects Of Overexposure - Inhalation:** Inhalation may cause irritation to the respiratory tract (nose, mouth, mucous membranes) & acute nervous system depression characterized by the following progressive steps: headache, dizziness, staggering gait, confusion, unconsciousness, or coma. Exposure may cause drowsiness. Inhalation may cause headaches, difficult breathing, and loss of consciousness. Overexposure to METHYL NORMAL PROPYL KETONE, a component of this formulation, has been suggested as a cause of mild, reversible effects on the livers and kidneys of laboratory animals. A component may form methanol vapors in the lungs. Methanol vapors may cause numbness, shooting pains, and tingling, in the hands and forearms. Methanol vapors may also cause disturbances of vision, dizziness, and drowsiness.

**Effects Of Overexposure - Ingestion:** Ingestion may cause gastrointestinal irritation, abdominal pain, nausea, vomiting, and diarrhea. May result in possible corrosive action in the mouth, stomach tissue, and digestive tract. Vomiting may cause aspiration of the solvent, resulting in chemical pneumonitis. Harmful or fatal if swallowed. Lung inflammation or other lung injury may occur if methyl n-propyl ketone enters the lungs through vomiting or swallowing. Ingesting of a component may lead to the formation of methanol in the stomach. Methanol may cause damage to the muscle in the heart, liver, and kidneys. Methanol may also cause shortness of breath, nausea, vomiting, cramps, weakness, fatigue, dizziness, confusion, visual disturbances, eye damage, blindness, restlessness, drunken behavior, abdominal pain, drowsiness, headache, coma, and death.

**Effects Of Overexposure - Chronic Hazards:** Prolonged contact will cause drying and cracking of the skin, due to defatting action. Repeated or prolonged contact causes sensitization, asthma, and eczemas. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin. Symptoms of overexposure may occur for up to 48 hours after the original exposure occurred. Exposure to METHYL NORMAL PROPYL KETONE, a component of this formulation, has been found to cause kidney damage in male rats. The mechanism by which this toxicity occurs is specific to the male rat and the kidney effects are not expected to occur in humans. Methyl n-propyl ketone, a component of this formulation, has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

**Primary Route(s) Of Entry:** Skin Contact, Inhalation, Eye Contact

### Section 3 - Composition / Information On Ingredients

Component	CAS Number	Weight % Reporting Ranges
BISPHENOL A EPOXY RESIN, AVG. MOL. WT. < 700	25085-99-8	60-100
METHYL n-PROPYL KETONE	107-87-9	7-13
METHYL n-AMYL KETONE	110-43-0	3-7
3-GLYCIDOXYPROPYLTRIMETHOXYSILANE	2530-83-8	1-5

ALL INGREDIENTS ARE ON THE TSCA INVENTORY LIST, UNLESS OTHERWISE NOTED IN SECTION 8.

#### Section 4 - First Aid Measures

**First Aid - Eye Contact:** If material gets into eyes, flush with water immediately for 15 minutes. Hold eyelids open to rinse out the entire eye. Consult a physician. If symptoms develop (irritation) from airborne exposure, move to fresh air.

**First Aid - Skin Contact:** Remove contaminated clothing and shoes. In case of contact, immediately flush skin with plenty of water and wash affected areas thoroughly with soap and water. Wash contaminated clothing thoroughly before reuse or discard. If symptoms develop, consult a physician.

**First Aid - Inhalation:** Move to fresh air in case of accidental inhalation of vapors. Restore breathing. Asthmatic type symptoms may develop and maybe immediate or delayed by several hours. In the case of inhalation of aerosol/mist, consult a physician, if necessary.

**First Aid - Ingestion:** Do not induce vomiting. Do not give anything to an unconscious person. Obtain medical help.

#### Section 5 - Fire Fighting Measures

Flash Point (°F): 46 TCC      LOWER EXPLOSIVE LIMIT (%): 1.1      UPPER EXPLOSIVE LIMIT (%): 8.0

Extinguishing Media: Carbon Dioxide, Dry Chemical, Foam, Water Spray, Dry Sand, Dry Powder

Unusual Fire And Explosion Hazards: Keep containers tightly closed. Isolate from heat, sparks, electrical equipment and open flame. Fire or intense heat may cause violent rupture of packages. Application to hot surfaces requires special precautions. Toxic gases may form when product burns. Remove all sources of ignition.

Special Firefighting Procedures: In the event of fire, wear self-contained breathing apparatus. Firefighters should wear full protective clothing. Flammable. Cool fire-exposed containers using water spray.

#### Section 6 - Accidental Release Measures

Steps To Be Taken If Material Is Released Or Spilled: Evacuate all non-essential personnel. Remove all sources of ignition. Ventilate area. Contain and remove spilled material with inert absorbent and non-sparking tools. Use personal protective equipment as necessary. Dike to prevent entering any sewer or waterway. Soak up with vermiculite or inert absorbent material.

#### Section 7 - Handling and Storage

Handling: Prevent prolonged breathing of vapors or spray mist. Avoid contact with eyes and skin. Do not take internally. Do not handle until the manufacturers safety precautions have been read and understood. Handle in accordance with good industrial hygiene and safety practice. Keep away from heat and sources of ignition.

Storage: Store in buildings designed to comply with OSHA 1910.106. Avoid storing near high temperatures, fire, open flames, and spark sources. Keep containers upright to prevent leakage and tightly closed in a dry, cool, and well-ventilated place. Protect material from direct sunlight.

#### Section 8 - Exposure Controls / Personal Protection

Component	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
BISPHENOL A EPOXY RESIN, AVG. MOL. WT. < 700				
METHYL n-PROPYL KETONE	200 ppm	250 ppm	200 ppm	250 ppm
METHYL n-AMYL KETONE	50 ppm	N.E.	100 ppm	N.E.
3-GLYCIDOXYPROPYLTRIMETHOXYSILANE	N.E.	N.E.	N.E.	N.E.

#### Notes

METHYL n-PROPYL KETONE CAS# 107-87-9 has been shown to cause harm to the fetus in laboratory animals. It only caused harm at levels of overexposure that would also harm the pregnant animal. The relevance to humans is unknown. It also has been shown to cause mild, reversible kidney effects and mild, reversible liver effects in laboratory animals.

3-GLYCIDOXYPROPYLTRIMETHOXYSILANE CAS# 2530-83-8 - 1 ppm TLV Suggested by DOW Chemical. It has been shown in animal studies to be a weak mutagen. It is improbable that this substance will cause a significant genotoxic hazard. Contact with water and an alkali or acid catalyst, under certain conditions, may cause hydrolysis or polymerization to occur. Both reactions are exothermic (produce heat), and may occur at the same time.

Engineering Controls: Local ventilation of emission sources may be necessary to maintain ambient concentrations below permissible OSHA exposure limits. Remove all ignition sources (heat, sparks, flame, and hot surfaces).

Respiratory Protection: A respirator that is recommended or approved for use in an organic vapor environment (air purifying or fresh air supplied) is necessary. Observe OSHA regulations for respirator use. Ventilation should be provided to keep exposure levels below the OSHA permissible limits.

Skin Protection: Solvent-resistant gloves.

Eye Protection: Wear safety eyewear (safety glasses, safety glasses with side-shields, chemical goggles, or face shields) to prevent eye contact.

Other protective equipment: Long sleeve and long leg clothing is recommended. Remove and wash contaminated clothing before reuse or discard. Safety shower and eyewash station should be located in immediate work area. Wear boots that are chemical-resistant.

Hygienic Practices: Wash hands before breaks, eating, smoking, using washroom, and at the end of the workday.

#### Section 9 - Physical and Chemical Properties

<u>Component</u>	<u>CAS Number</u>	<u>Percent By Weight</u>
METHYL ISOBUTYL KETONE	108-10-1	0.6155

Warning: The following ingredients present in the product are known to the state of California to cause birth defects, or other reproductive hazards.

None

**International Regulations: As follows –**

**CANADIAN WHMIS:** This MSDS has been prepared in compliance with Controlled Product Regulations except for the use of the 16 headings.

**CANADIAN WHMIS CLASS:** B2, D2B

**Section 16 - Other Information**

**HMIS Ratings:**

Health: 1

Flammability: 3

Reactivity: 1

Personal Protection: G

**NFPA Fire Rating:** 3

**NFPA Health Rating:** 2

**NFPA Specific Hazard Rating:** NA

**NFPA Stability Rating:** 1

**VOLATILE ORGANIC COMPOUNDS, GR/LTR:** 190

**VOLATILE ORGANIC COMPOUNDS, LB/GAL:** 1.58

**VOLATILE ORGANIC COMPOUNDS MIXED, GR/LTR:** <= 340

**VOLATILE ORGANIC COMPOUNDS MIXED, LB/GAL:** <= 2.83

**VOLATILE ORGANIC COMPOUNDS, LB/LB-SOLID:** <= 0.22

**VOLATILE ORGANIC COMPOUNDS OF MATERIAL (SCAQMD RULE 443.1), GR/LTR:** 190

**VOLATILE ORGANIC COMPOUNDS OF MATERIAL (SCAQMD RULE 443.1), LB/GAL:** 1.58

**VOLATILE HAPs PER WEIGHT SOLIDS, LB./LB.** 0.00752

**REASON FOR REVISION:** UPDATED PROPOSITION 65

**REGULATORY CODE:** 02GN084CAT

**LAYOUT CODE:** A2004R

**Legend:** N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

The information contained on this MSDS has been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations.



## PRODUCT INFORMATION DATA SHEET

17451 Von Karman Avenue, Irvine, CA 92614  
Tel (949) 474-0400 (800) 544-3338  
Fax (949) 474-7269  
www.deftfinishes.com

# 02GN084

## Non-Chrome Epoxy Polyamide Primer

### Product Information

**Specifications** MIL-PRF-23377J Type I Class N

**Description** Chemically cured, non-chromate, two-component epoxy polyamide primer

**Features**

- Corrosion inhibiting
- Chemical and Solvent Resistant
- Resistant to immersion in Hydraulic Fluids, Lubricating Oils, Phosphate Ester Based Hydraulic Fluids, Skydrol and Distilled water

**Color** Aqua

**Reducer** None required. May be reduced with IS-237\*

**Mix Ratio** 3 parts 02GN084 base by volume to 1 part 02GN084CAT catalyst by volume

Kit size	02GN084 base	02GN084CAT
GK	96 oz / 2.84 L	32 oz / 946 mL
QK	24 oz / 710 mL	8 oz / 237 mL

**Pot Life** 4 hours at 75° ± 10°F

**Viscosity** initial: 20 ± 2 seconds # 2 EZ Zahn Cup  
40 seconds, max, # 4 Ford Cup  
Pot life: 70 seconds, max, # 4 Ford Cup

**Induction Time** None required

**Application Thickness** 0.6 – 0.9 mils dry film thickness

**Storage Stability** 2 years from DOM when stored between 72 - 80°F

**Recommended Storage** Store indoors between 70 – 90°F in original unopened containers.

\*Use only if needed and if local and state VOC limits allow.

### Characteristics\*

Characteristics	Base	Catalyst	Admixed
Weight per gallon (lbs)	11.6	8.9	10.9
% Solids by weight	51.3	82.2	57.6
% Solids by volume	38.5	76.5	48.0
Coatings VOC (g/L)	394	190	330
Coatings VOC (lbs/gal)	3.3	1.6	2.8
Material VOC (g/L)	291	190	266
Material VOC (lbs/gal)	2.4	1.6	2.2

Dry film density\*\*: 1.57 g/cc  
Theoretical Coverage\*\* per gallon as applied: 770 sq. ft.  
Theoretical Dry Film Weight per gallon kit as applied: 3.70 g/sq. ft (0.00815-lbs/sq. ft)

\* Characteristics are calculated based on product formulas and ingredient characteristics as reported to Deft, Incorporated by raw material suppliers. Values reported are not specification values. They are presented for general information only.

\*\* Dry film density and theoretical coverage based on proper application of coating at 1 mil dry film thickness and 100% transfer efficiency.

### Dry Times

**Topcoat Window:** 5 – 24 hours\* **Tack Free:** 2 hours, min  
**Dry Hard:** 8 hours, max **Full Cure:** 7 days, min

\* Reactivation required before topcoating after 24 hours primer cure  
Note: Dry times above were established at room (ambient) temperatures, 75° ± 5°F and 50% ± 10% Relative Humidity.

### Forced Dry Schedule

For dry to stack conditions only. Allow a minimum of 15 minutes flash off time at ambient temperatures\* prior to exposing painted parts to high temperatures. Complete testing should be done prior to use. Below are suggested starting points. Other variables may affect these cure schedules.

Temperature	Time
120°F	45 minutes
140°F	30 minutes
160°F	20 minutes
180°F	15 minutes

\* Ambient temperatures are defined as 70° ± 10°F and 50% ± 10% Relative Humidity.

### Mixing and Thinning

**GK & QK:** Stir or shake the base component to ensure any pigment, which may have settled on the bottom of the can, has been fully incorporated into the base. Do not stir or shake the base component longer than 5 minutes. Slowly add the one volume of catalyst to three volumes base component. Mix by hand stirring, paint shaker or mechanical mixing to ensure the base/catalyst mixture is homogeneous. **DO NOT SHAKE OR MECHANICALLY MIX MATERIAL FOR LONGER THAN 10 MINUTES.** Constant agitation of the material during spray application is recommended.

### Application Equipment

Conventional, Air, Air Assisted Airless, HVLP, Electrostatic spray equipment may be used to apply this material. For your application, please contact the equipment manufacturer for more specific information on Conventional, HVLP or Electrostatic spray applications, and recommendations on hose diameter and lengths.

### Packaging, Yields, Shipping Weight

This material is available in the follow kit sizes:

Kit size	Approx. Yield (Mixed)	Approx. Shipping Weight
GK	1 gallon (3.8 L)	12.3 lbs (5.6 kg)
QK	1 quart (946 mL)	3.6 lbs (1.6 kg)

Additional kit sizes are available upon request.

### Equipment Cleanup

Use IS-237 Epoxy Reducer (MIL-T-81772B Type II) to remove any liquid or residual primer from equipment. Once material has cured, use an approved chemical paint removal system to strip primer from parts and equipment

### Safety

Refer to the product label or Material Safety Data Sheet (MSDS) for each component for Personal Protective Equipment and Proper Handling.